



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,146	10/19/2001	Lawrence H. Domash	A00770/70043 GSE	8528

23628 7590 02/14/2003

WOLF GREENFIELD & SACKS, PC
FEDERAL RESERVE PLAZA
600 ATLANTIC AVENUE
BOSTON, MA 02210-2211

EXAMINER

YAM, STEPHEN K

ART UNIT PAPER NUMBER

2878

DATE MAILED: 02/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/000,146

Applicant(s)

DOMASH ET AL.

Examiner

Stephen Yam

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

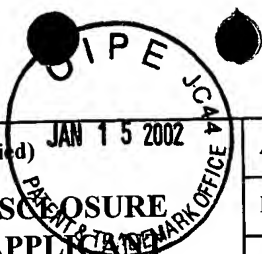
Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6,8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**



APPLICATION NO.: 10/000,146

ATTY. DOCKET NO.: A0770/7043

FILING DATE: October 19, 2001

APPLICANT: Domash et al.

GROUP ART UNIT: Unassigned

EXAMINER: Unassigned

Sheet 1 of 1

U.S. PATENT DOCUMENTS

Examiner's Initials#	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
SK	A1	5,524,153	B1	Laor	06-04-1996
SK	A2	6,097,858	B1	Laor	08-01-2000
SK	A3	6,097,860	B1	Laor	08-01-2000
SK	A4	6,101,299	B1	Laor	08-08-2000
SK	A5	6,236,481	B1	Laor	05-22-2001

EXAMINER <i>CDY</i>	DATE CONSIDERED <i>2/7/03</i>
---------------------	----------------------------------

#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

*a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. _____, filed _____, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

[NOTE - Must provide a copy of any patent, publication, other information listed, even if it was previously submitted to, or cited by, the U.S. Patent Office in an earlier application, unless the earlier application is identified by the IDS and is relied upon for an earlier filing date under 35 U.S.C. §120, and the copy was provided in the earlier application.]

COPY OF PAPERS
ORIGINALLY FILED

FORM PTAB-1449/A and B (Modified)

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

APPLICATION NO.: 10/000,146

ATTY. DOCKET NO.: A00770/70043 GSE

FILING DATE: October 19, 2001

CONFIRMATION NO.: 8528

APPLICANT: Lawrence H. Domash et al.

GROUP ART UNIT: 2877

EXAMINER: Not Yet Assigned

Sheet 1 of 1

U.S. PATENT DOCUMENTS

Examiner's Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
SK	A1	5,767,712	B1	Takemae et al.	06-16-1998
SK	A2	5,790,255	B1	Jackson et al.	08-04-1998
SK	A3	6,037,644	B1	Daghighian et al.	03-14-2000

FOREIGN PATENT DOCUMENTS

Examiner's Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
SK	B1	JP	08 250551	A	Mitsubishi Electric Corp.	09-27-1996	Abstract
SK	B2	JP	08 250551	A	Mitsubishi Electric Corp.	09-27-1996	N
SK	B3	WO	01/73850	A2	Aegis Semiconductor	10-04-2001	

EXAMINER

DATE CONSIDERED

#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.
Include copy of this form with next communication to applicant.

*a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. __, filed __, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

[NOTE - Must provide a copy of any patent, publication, other information listed, even if it was previously submitted to, or cited by, the U.S. Patent Office in an earlier application, unless the earlier application is identified by the IDS and is relied upon for an earlier filing date under 35 U.S.C. §120, and the copy was provided in the earlier application.]

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 203 (Fig. 1). A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

~~3. Claims 4, 5, 6, 11, and 12 are objected to because of the following informalities:~~

In Claim 4, line 1, "the signal" lacks proper antecedent basis.

In Claim 5, line 2, "the first sensor" lacks proper antecedent basis.

In Claim 5, line 3, and Claim 6, line 2, "the beam" lacks proper antecedent basis.

In Claim 6, line 3, "the optical switching element" lacks proper antecedent basis.

In Claim 11, line 3, "the first optical beam" and "the second optical beam" lack antecedent basis.

In Claim 12, line 2, "the target center" lacks proper antecedent basis, as prior references to a center refer to a "nominal center".

Art Unit: 2878

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-8, 10, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by LaBudde US Patent No. 4,696,062.

Regarding Claim 1, LaBudde teaches (see Fig. 1) an optical system including a steered beam (through (6), (8)), comprising a source (2,28) (see Fig. 1 and 2) of a light beam, a device (6,8) which receives the light beam and steers it to form the steered beam, a target (4) of the steered beam, and a semi-transparent sensor (30,32,46,48) (see Fig. 2) having an output signal (out of (48)) indicative of a deviation of the steered beam from the target.

Regarding Claim 7, LaBudde teaches (see Fig. 1) a method of performing real-time control of an optical switch, comprising steering (10,12) an optical beam onto a target (4) within the switch, measuring (30,32,46,48) (see Fig. 2) a deviation (see Col. 7, lines 6-8, 23-25, and 31-34) of the optical beam from a nominal center of the target while the optical beam is on the target, and correcting (44) the direction of the optical beam to the nominal center of the target.

Art Unit: 2878

Regarding Claim 2, LaBudde teaches (see Fig. 2) a portion (32) of the sensor overlying the target.

Regarding Claim 3, LaBudde teaches (see Fig. 2) the source of the light beam comprising a pilot signal source (28) whereby the light beam has an information carrying portion (36) and a pilot portion (34).

Regarding Claim 4, LaBudde teaches (see Col. 5, lines 51-54) the pilot portion carried on a first wavelength and the information-carrying portion on a second wavelength and wherein the sensor comprises a sensor film (32) that is more transparent at the second wavelength than at the first wavelength and more sensitive to the first wavelength than the second wavelength (see Col. 5, lines 45-48 and 54-58).

Regarding Claim 5, LaBudde teaches (see Fig. 2) a second sensor (40) overlying the first sensor (46), whereby both position (see Col. 7, lines 6-13) and direction (see Col. 6, lines 43-47) of the beam are measured.

Regarding Claim 6, LaBudde teaches (see Fig. 1) an optical switching element (6, 8,10,12) through which a beam passes, wherein the target is one of plural targets (4a,4b,4c) (see Col. 3, lines 45-46 and Col. 4, lines 32-36).

Regarding Claim 8, LaBudde teaches (see Fig. 2) combining an information signal (36) with a pilot signal (34) to form the optical beam

Regarding Claim 10, LaBudde teaches (see Col. 5, lines 51-58) emitting the pilot signal at a different frequency than the information signal to distinguish it from the information signal.

Regarding Claim 12, LaBudde teaches (see Col. 7, lines 6-8, 23-25, and 31-34) detecting when the optical beam leaves the nominal center.

Regarding Claim 13, LaBudde teaches measuring a position of the optical beam as a continuous signal (see Col. 4, line 64 to Col. 5, line 21).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over LaBudde in view of Goldstein et al. US Patent no. 6,243,507.

LaBudde teaches the method as taught in Claim 8, according to the appropriate paragraph above. LaBudde does not teach modulating the pilot signal to distinguish it from the information signal. Goldstein et al. teach a method for control of an optical switch comprising steering (20) an optical beam onto a target (55) within the switch, measuring a deviation of the optical beam by using a pilot signal (see Col. 6, lines 11-15) combined with the information signal, where the pilot signal is modulated (see Col. 6, lines 11-13- "*variation in the intensity of a pilot tone*"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modulate the intensity of the pilot signal to distinguish it from the information signal as taught by Goldstein et al. in the method of LaBudde, to utilize a single wavelength for optical transmission to reduce errors from wavelength-specific loss.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over LaBudde in view of Watanabe et al. US Patent no. 5,754,320.

LaBudde teaches the method as taught in Claim 8, according to the appropriate paragraph above. LaBudde also teaches a first and second optical beam (using different fibers (4a,4b,4c)). LaBudde does not teach a first pilot signal in a first optical beam modulated differently from a second pilot signal modulated in a second optical beam. Watanabe et al. teaches an optical switching apparatus where a specific pilot signal is combined with each information signal (see Col. 7, lines 32-35), wherein pilot signals are modulated individually to carry identification and routing information for each optical beam. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modulate distinguish the first optical beam from the second optical beam by modulating pilot signals differently as taught by Watanabe et al. in the method of LaBudde, to monitor the conditions of the cross-connect, as taught by Watanabe et al. (see Col. 7, lines 42-47).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee, US Patent No. 5,206,497, teaches an optical switching apparatus with a pilot signal to detect the destination of the optical signal and determine beam quality and offset.

Lin, US Patent No. 6,493,475, teaches an optical switch with a semi-transparent sensor for measuring the deviation of the optical beam from the nominal center.

Art Unit: 2878


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Yam whose telephone number is (703)306-3441. The examiner can normally be reached on Monday-Friday 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (703)308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7724 for regular communications and (703)308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

SY

SY
February 10, 2003


DAVID PORTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800
